

Business Valuation Exercises

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Starting with Share Price

\$000s

Share Price (\$/sh) \$25.00

Shares Outstanding (000) 20,000

Market Capitalization \$500,000

Short Term Debt \$0

Long Term Debt \$30,000

Cash \$2,395

Net Debt \$27,605

Enterprise Value \$527,605

Starting with Enterprise Value

\$000s

Share Price (\$/sh) \$25.00

Shares Outstanding (000) 20,000

Market Capitalization 500,000

Short Term Debt \$0

Long Term Debt \$30,000

Cash \$2,395

Net Debt \$27,605

Enterprise Value (DCF/Comps) \$527,605

Income Statement

All figures in USD thousands unless stated

Company A Company B

	2023F	2023F
Revenue	56,481	56,481
COGS	(27,111)	(27,111)
Gross Profit	29,370	29,370
SG&A	(6,359)	(6,359)
Other	(2,097)	(2,097)
EBITDA	20,914	20,914
Depreciation	(4,288)	(4,288)
EBIT	16,626	16,626
Interest Expense	(1,200)	(120)
EBT	15,426	16,506
Provision for Taxes	(3,252)	(3,466)
Net Income	12,175	13,040

Simplified Balance Sheet

All figures in USD thousands unless stated

Company A Company B

	2023F	2023F
Total Assets	100,000	100,000
Debt	20,000	2,000
Shareholder's Equity	80,000	98,000

Multiples

All figures in USD thousands unless stated

Company A Company B

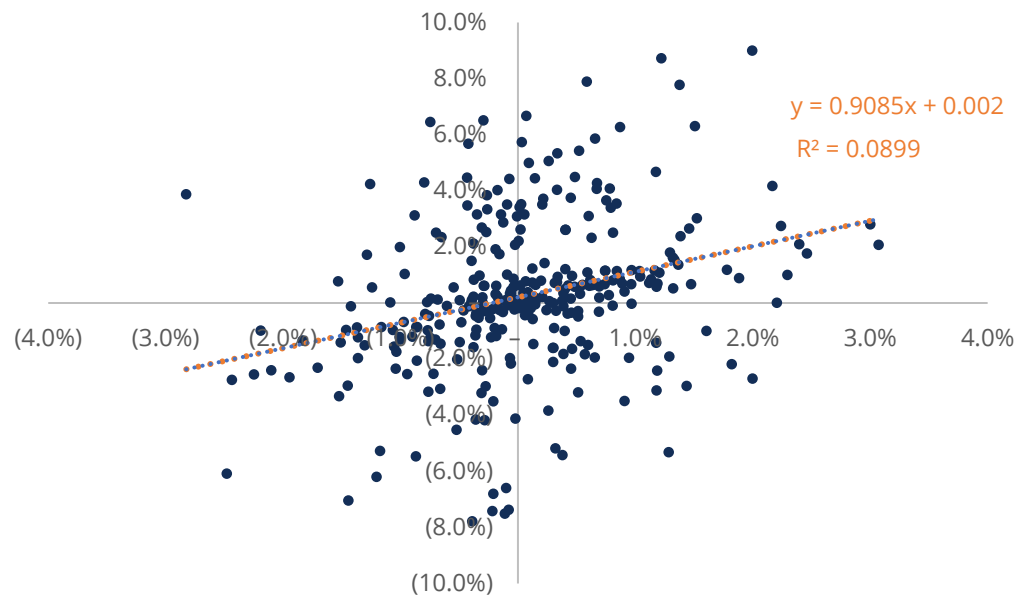
Market Cap	160,000	178,000
Net Debt	20,000	2,000
Enterprise Value	180,000	180,000
EBITDA	20,914	20,914
Enterprise Value/EBITDA	8.6x	8.6x

Company A Company B

Market Cap	160,000	178,000
Net Income	12,175	13,040
Price/Earnings	13.1x	13.6x

Model assumes Company B's market cap is exactly higher than Company A's due to the difference in debt.⁽¹⁾

Weighted Average Cost of Capital	Cost	Value (\$MM)	Weighting
Risk Free Rate	2.5%		
Equity Risk Premium	6.0%		
Beta	0.9085		
Equity	8.0%	29,000	72.5%
Yield on Debt	5.8%		
Tax Rate	32.0%		
Debt	3.9%	11,000	27.5%
Weighted Average Cost of Capital (WACC)	6.8%	40,000	100.0%
<i>R-squared</i>	0.0899		



Unlevering and Relevering Beta

All figures in USD thousands unless stated

Name	Region	Debt	Equity	Average Tax Rate	Debt/Equity	Levered Beta ¹	Unlevered Beta ²
Company ABC	North America	63,000	370,000	31.5%	17.0%	1.01	0.90
Company DEF	North America	90,000	300,000	26.5%	30.0%	1.09	0.89
Company XYZ	North America	75,000	125,000	30.0%	60.0%	1.25	0.88
Average							0.89

Target Company Debt/Equity Ratio	15.0%
Target Company Tax Rate	25.0%
Levered Beta ³	0.99

Levered beta is based on 5-year monthly data. ⁽¹⁾

Unlevered Beta = Levered Beta / (1 + (1 - Tax Rate) × Debt-to-Equity) ⁽²⁾

Levered Beta = Unlevered Beta × (1 + (1 - Tax rate) × (Debt-to-Equity)) ⁽³⁾

Terminal Value

Terminal Value using a Perpetual Growth Rate

Discount Rate	11.3%
Perpetual Growth Rate	2.0%

						Terminal FCF
Years	1	2	3	4	5	5
Cash Flows	9,987	10,594	10,711	11,077	12,120	12,362
Terminal Value	–	–	–	–	–	133,302
Total Cash Flows	9,987	10,594	10,711	11,077	12,120	133,302
Present Value of Cash Flows	8,976	8,556	7,774	7,225	7,105	78,139

Enterprise Value	117,775
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Terminal Value using a Terminal EBITDA Multiple

Discount Rate	11.3%
Terminal EBITDA Multiple	7.0x

						Terminal Value
Years	1	2	3	4	5	5
EBITDA	13,012	13,923	14,759	15,497	16,116	16,116
Cash Flows	9,987	10,594	10,711	11,077	12,120	–
Total Cash Flows	9,987	10,594	10,711	11,077	12,120	112,812
Present Value of Cash Flows	8,976	8,556	7,774	7,225	7,105	66,128

Enterprise Value	105,764
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DCF; NPV vs XNPV; IRR vs XIRR

Manual Discounting

Discount Rate 11.3%

Periods for Discounting	-	1	2	3	4	5
Dates	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027
Cash Flows	(20,000)	9,987	10,594	10,711	11,077	149,219
Discounted Cash Flows	(20,000)	8,976	8,556	7,774	7,225	87,469

Sum of DCF 100,001

Periodic Cashflow Timing - NPV and XNPV, and IRR and XIRR are nearly equal

Discount Rate 11.3%

Dates	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027
Cash Flows	(20,000)	9,987	10,594	10,711	11,077	149,219

NPV	100,001
XNPV	99,968
IRR	78.9%
XIRR	78.8%

Random Cashflow Timing - NPV and XNPV are not equal / IRR and XIRR are not equal

Discount Rate 11.3%

Dates	1/1/2023	6/30/2023	2/12/2025	3/17/2027	6/30/2027	9/9/2027
Cash Flows	(20,000)	9,987	10,594	10,711	11,077	149,219

NPV	100,001
XNPV	102,020
IRR	78.9%
XIRR	85.3%